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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/662,253

09/14/2000

Thomas P. Szumla

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06/02/2005

PATENT LEGAL STAFF
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EXAMINER

NGUYEN, MADELEINE ANH VINH

ART UNIT

PAPER NUMBER

2626

DATE MAILED: 06/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/662,253

Applicant(s)

SZUMLA ET AL.

Examiner

Madeleine AV Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 December 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 12-17 and 22-26 is/are rejected.
- 7) ☒ Claim(s) 8-11, 18-21 and 27 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 December 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This communication is responsive to amendment filed on December 07, 2004.

Applicant substitutes new drawings and adds new claims 24-27.

Response to Arguments

Applicant's arguments, see pages 9-13, filed on December 07, 2004 with respect to claims 1-23 have been fully considered and are persuasive. The rejections of claims 1-23 have been modified.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3, 8-11, 13, 18-21, 23-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yasuda (US Patent No. 6,081,347).

Concerning claim 1, Yasuda discloses an image processor (Fig. 2) generating image output for a printer from image data received from an image source (the image is stored temporarily in 202) comprising a first processor system (201) having a first bus (bus connecting the first processor system 201 to 202) for communication with the image source 202, the first processor system further characterized by providing control of the image processing performed

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within the image processor; and a second processor system (205) in circuit communication with the first processor system 201 and having a second bus (bus connecting the second processor system 205 to 202) for communication with the image source, the second processor system receiving image data from the image source via the second bus and perform the image processing in the image processor responsive to control by the first processor system.

Yasuda does not directly teach that the first processor system provides high-level control. And the second processor system performs a majority of the image processing performed within the image processor. However, Yasuda teaches that the first processor system 201 (CPU) “perform the whole control” of the image processor (col. 4, lines 43-45) and the second processing system 205 “receives, via the high-speed CPU bus 204, an image formation command which is inputted from an external interface ..., and generates a bit-map image in accordance with contents of the command in order to output the image to a high-speed image bus. The RIP 205 can process page-description languages such as PS, PCL, PIPS, and Canon Printing System Language (CaPSL).” (col. 4, lines 57-64). It would have been obvious to one skilled in the art at the time the invention was made to consider the first processor system 201 provide high-level control of the image processor since it performs the whole control of the image processor and the second processor system 205 perform a majority of the image processor since, as claimed, the image processor is for generating image output for a printer from image data received from an image source while the second processor system 205 receives the image data from an image source and process the image based on the image formation commands received from the first processor system 201 in order to output the processed image for printing as taught in Yasuda.

Concerning claims 2-3, 13 the first processor system receives and transmits control data from the image source via the first bus; the printer is an ink jet and the second processor generates the image output in the form of the ink jet control signals.

Claim 23 is method claim of apparatus claim 1. Claim 23 is rejected for the same rationales set forth for claim 1.

Concerning claim 24, Yasuda discloses an image processor as discussed in claim 1 above. Yasuda further teaches that the second processor system 205 is characterized by having an image data bus (bus connecting 205 to 202) providing a printer image data path separate from the printer control and status path (path between 205 and 201) for communication with the image source.

Concerning claim 25, Yasuda further teaches that the second processor 205 has a control/status bus connecting to the first processor 201 for providing a control/status data path (col. 4, lines 43-64).

Concerning claim 26, the control/status data path (path between 201 and 205) is separate from both the printer control and status path (path between 202 and 201) and the printer image data path (path between 205 and 202).

3. Claims 4-7, 12, 14-17, 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yasuda as applied to claims 1-3 above, and further in view of Clark (US Patent No. 5,899,604).

Concerning claims 4-7, 12, 14-17, 22, Yasuda fails to teach that the raster image processor is in circuit communication with a plurality of color plane processors wherein each of the color plane processors corresponding to one of a plurality of color planes of the image data

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and the RIP processor performs separation of the image data into at least cyan plane data, yellow plane data, magenta plane data, black plane data, light cyan plane data, light magenta plane data, to generate image output for the printer. Clark discloses a computer with an eight-plane RIP processor for forming black, yellow, magenta, cyan planes and light cyan, magenta, cyan planes and generating output image for printing (Figs. 2, 5; Abstract; col. 4, line 54 – col. 6, line 14). It would have been obvious to one skilled in the art at the time the invention was made to combine the teaching of Clark to the RIP processor in Yasuda since in Clark, it is a matter of well known in the prior art that a RIP processor performs separation of the image data into at least cyan, magenta, yellow, black plane data and light cyan, magenta, yellow plane data while the RIP processor in Yasuda and Clark can process color image data and generating an image output for printing.

Allowable Subject Matter

4. Claims 8-11, 18-21, 27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. The following is an Examiner's Statement of Reasons for Allowance:

a. Claims 8-11, 18-21 are allowable over the prior art of record because the Examiner found neither prior art cited in its entirety, nor based on the prior art, found any motivation to combine any of the said prior art which teaches an image processor as claimed in claims 1 and 24 wherein each of the plurality of color plane processors is further characterized by performing at

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least one of the following functions on its respective color plane data as part of generating image output for the printer: print masking, registration correction, failed nozzle correction.

Claim 27 is allowable over the prior art of record because the Examiner found neither prior art cited in its entirety, nor based on the prior art, found any motivation to combine any of the said prior art which teaches an image processor as claimed in claim 24 wherein the image data bus provides a greater speed of transfer than the print control bus.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

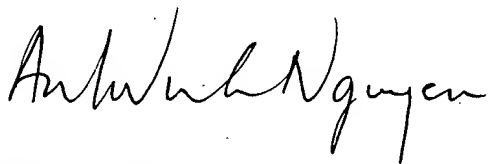
a. Menendez et al (US Patent No. 5,113,494) discloses a high-speed raster image processor capable of driving a printing engine at a high rate for use in an image management system.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Madeleine AV Nguyen whose telephone number is 571 272-7466. The examiner can normally be reached on Monday, Tuesday, Thursday 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly A. Williams can be reached on 571 272-7471. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in cursive script, appearing to read "Madeleine AV Nguyen".

Madeleine AV Nguyen
Primary Examiner
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May 26, 2005